

## DESIGN ENVELOPE EXPRESS PUMP 4300 | 1506-003.0 | SUBMITTAL

**File No:** 100.3000  
**Date:** DECEMBER 24, 2015  
**Supersedes:** 100.3000  
**Date:** SEPTEMBER 22, 2015

Job: \_\_\_\_\_ Representative: \_\_\_\_\_

Order No: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_ Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor: \_\_\_\_\_ Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

### PUMP DESIGN DATA

No. of pumps: \_\_\_\_\_ Tag: \_\_\_\_\_

Capacity: \_\_\_\_\_ USgpm (L/s) Head: \_\_\_\_\_ ft (m)

Liquid: \_\_\_\_\_ Viscosity: \_\_\_\_\_

Temperature: \_\_\_\_\_ °F (°C) Specific gravity: \_\_\_\_\_

Suction: 1.5" (38mm) Discharge: 1.5" (38mm)

**OSHPD Seismic Certification OSP-0422-10**

**UL STD 778 & CSA STD C22.2 NO.108 certified**

### MOTOR DESIGN DATA

HP: 3 RPM: 3600 Frame size: 145 Enclosure: TEFC

Volts:  230V  460V  575V Hertz: 60 Hz

Phase: 3 Efficiency: NEMA premium 12.12

### MAXIMUM PUMP OPERATING CONDITIONS

#### ANSI 125

175 psig at 150°F (12 bars at 65°C)

100 psig at 300°F (7 bars at 150°C)

#### ANSI 250

375 psig at 150°F (26 bars at 65°C)

260 psig at 300°F (21 bars at 150°C)

- Tolerance of  $\pm 0.125"$  ( $\pm 3$  mm) should be used
- For exact installation, data please write factory for certified dimensions

### MECHANICAL SEAL DESIGN DATA

See file no. 43.50 for standard mechanical seal details as indicated below

Armstrong seal reference number: c1 (a)

### CONTROLS DATA



**Sensorless Control:** Standard

**Minimum system pressure to be maintained:** \_\_\_\_\_ ft (m)\*

**Orientation:** L1

**Protocol:** BACnet™

**Enclosure:** Indoor - UL TYPE 12

**EMI/RFI control:** Integrated filter designed to meet EN61800-3

**Harmonic suppression:** Dual dc-link reactors (Equivalent: 5% AC line reactor) Supporting IEEE 519-1992 requirements\*\*

**Cooling:** Fan-cooled through back channel

**Ambient temperature:** -10°C to +45°C up to 1000 meters above sea level (-14°F to +113°F, 3300 ft)

**Analog I/O:** Two current or voltage inputs, one current output

**Digital I/O:** Six programmable inputs (two can be configured as outputs)

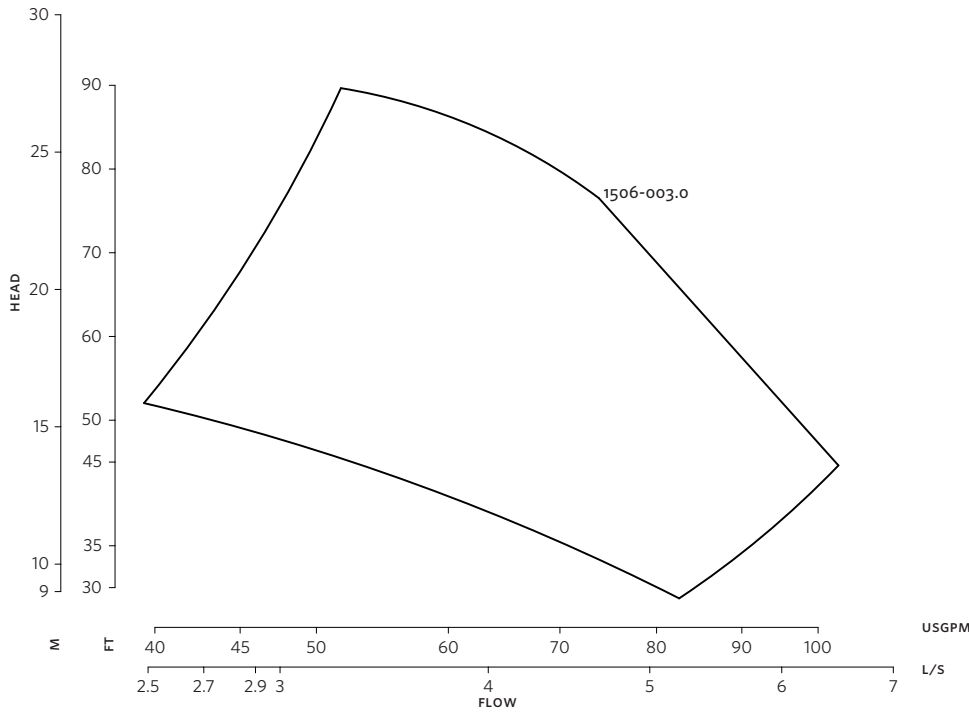
**Pulse inputs:** Two programmable

**Relay outputs:** Two programmable

**Communication port:** 1-RS485, 1-USB

\*If minimum maintained system pressure is not known: Default to 40% of design head

\*\*The IVS 102 drive is a low harmonic drive via built-in dc line reactors. This does not guaranty performance to any system wide harmonic specification or the costs to meet a system wide specification. If supplied with the system electrical details, Armstrong will run a computer simulation of the system wide harmonics. If system harmonic levels are exceeded Armstrong can also recommend additional harmonic mitigation and the costs for such mitigation.



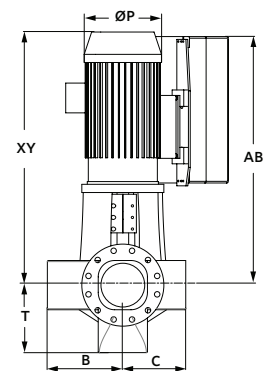
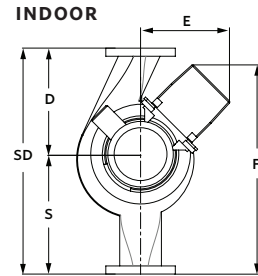
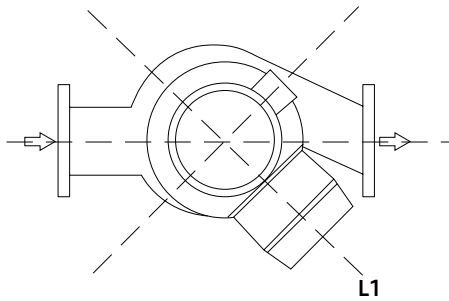
**DIMENSION DATA**

**INDOOR**  
(UL TYPE 12/TEFC)

- Frame size:** 145
- Size:** 1.5×1.5×6
- HP:** 3
- RPM:** 3600
- AB:** 24.89(632)
- B:** 4.53(115)
- C:** 4.53(115)
- D:** 7.25(184)
- E:** 11.85(301)
- P:** 8.63(219)
- F:** 18.85(479)
- S:** 7.00(178)
- SD:** 14.25(362)
- T:** 4.25(108)
- XY:** 22.00(559)
- Weight:** 205(93.0)

Performance curves are for reference only.  
Confirm current performance data with Armstrong ACE Online selection software.

Dimensions - inch (mm)  
Weight - lbs (kg)



**TORONTO**  
+1 416 755 2291

**BUFFALO**  
+1 716 693 8813

**BIRMINGHAM**  
+44 (0) 8444 145 145

**MANCHESTER**  
+44 (0) 8444 145 145

**BANGALORE**  
+91 (0) 80 4906 3555

**SHANGHAI**  
+86 21 3756 6696